

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Mikanda Walker Examiner #: 75063 Date: 6/1/2001
 Art Unit: 152 Phone Number 301-272-1337 Serial Number: 0/611891
 Mail Box and Bldg/Room Location: REM 9Ded Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Feb Sheet Attached

Inventors (please provide full names): _____

Earliest Priority Filing Date: _____

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Please search for a resist composition of formula 1a2. Thank you.

STAFF USE ONLY

	Type of Search	Vendors and cost where applicable
Searcher: <u>EL</u>	NA Sequence (#) _____	STN <u>\$178.50</u>
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) <u>✓ (2)</u>	Questel/Orbit _____
Date Searcher Picked Up: _____	Bibliographic _____	Dr.Link _____
Date Completed: <u>6-8-04</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: <u>5</u>	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: <u>55</u>	Other _____	Other (specify) _____

=> file reg

FILE 'REGISTRY' ENTERED AT 16:56:50 ON 08 JUN 2004
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=> d his

L1 FILE 'BEILSTEIN' ENTERED AT 16:47:40 ON 08 JUN 2004
 STR

L2 FILE 'REGISTRY' ENTERED AT 16:54:56 ON 08 JUN 2004
 SCR 2043
 L3 1 S L1 AND L2
 L4 13 S L1 AND L2 FUL
 SAV L4 WAL881/A

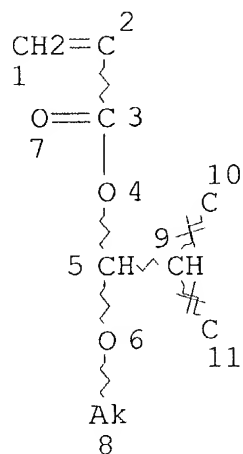
L5 FILE 'CAOLD' ENTERED AT 16:56:33 ON 08 JUN 2004
 0 S L4

L6 FILE 'ZCAPLUS' ENTERED AT 16:56:39 ON 08 JUN 2004
 4 S L4

FILE 'REGISTRY' ENTERED AT 16:56:50 ON 08 JUN 2004

=> d l4 que stat

L1 STR



NODE ATTRIBUTES:

CONNECT IS E1 RC AT 8

DEFAULT MLEVEL IS ATOM
GGCAT IS SAT AT 8
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS M1-X4 C AT 8

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE
L2 SCR 2043
L4 13 SEA FILE=REGISTRY SSS FUL L1 AND L2

100.0% PROCESSED 41991 ITERATIONS
SEARCH TIME: 00.00.01

13 ANSWERS

=> file zcaplus
FILE 'ZCAPLUS' ENTERED AT 16:57:03 ON 08 JUN 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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=> d 16 1-4 ibib abs hitstr hitrn

L6 ANSWER 1 OF 4 ZCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2004:198611 ZCAPLUS
DOCUMENT NUMBER: 140:236543
TITLE: Polymer compositions with good storage stability
INVENTOR(S): Hotta, Iwao; Kodama, Aya; Murata, Shigeru
PATENT ASSIGNEE(S): Kyowa Oil and Fat Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
JP 2004075864	A2	20040311	JP 2002-238712	20020820
PRIORITY APPLN. INFO.:			JP 2002-238712	20020820
AB The comps., useful for coating, adhesives, electronic packaging materials, etc., contain compds. bearing CO ₂ CH(OR ₃)CHR ₁ R ₂ (R ₁ -R ₃ = alkyl, aryl, aralkyl; R ₁ and R ₂ may form cycloalkyl groups with vicinal C atom; R ₂ and R ₃ may form O-contg. heterocyclic groups with				

vicinal CCO) and compds. bearing functional groups reactive with carboxyl groups. Thus, a compn. contg. 1-propoxy-2-methylpropyl methacrylate (manufd. from methacrylic acid and 1-propoxy-2-methylpropene)-styrene-Bu acrylate-Bu methacrylate copolymer, Epikote 1001 (epoxy resin), and bis(2-ethylhexyl)sulfosuccinic acid N-methylmorpholine salt showed viscosity increase 2% after storage at 50° for 1 mo.

IT 666817-41-0P

(vinyl polymer compns. with good storage stability)

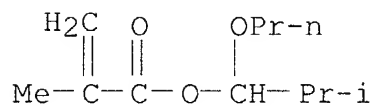
RN 666817-41-0 ZCAPLUS

CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with butyl 2-propenoate, ethenylbenzene and 2-methyl-1-propoxypropyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 487048-11-3

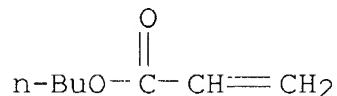
CMF C11 H20 O3



CM 2

CRN 141-32-2

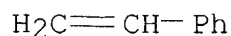
CMF C7 H12 O2



CM 3

CRN 100-42-5

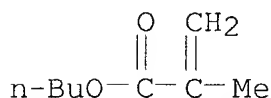
CMF C8 H8



CM 4

CRN 97-88-1

CMF C8 H14 O2



IT 666817-41-0P

(vinyl polymer compns. with good storage stability)

L6 ANSWER 2 OF 4 ZCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2004:183137 ZCAPLUS

DOCUMENT NUMBER: 140:225805

TITLE: Composition sensitive to visible light

INVENTOR(S): Yamaoka, Tsuguo; Ito, Katsuhiko; Iwasaki, Tsuyoshi; Shimizu, Ikuo

PATENT ASSIGNEE(S): Kyowa Yuka Co., Ltd., Japan

SOURCE: PCT Int. Appl., 16 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

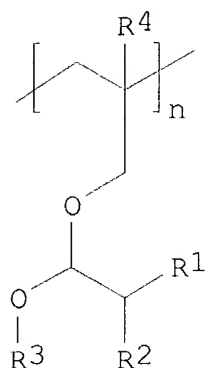
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004019131	A1	20040304	WO 2003-JP10534	20030820
W: AE, AG, AL, AM, <u>AT, AU</u> , AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.:

JP 2002-238714 A 20020820

GI



I

AB The invention relates to a compn. highly sensitive to visible light which comprises: (a) a polymer having repeating units of a structure represented by the general formula I (wherein R1, R2, and R3 are the same or different and each represents (un)substituted alkyl, (un)substituted aryl, or (un)substituted aralkyl, provided that R1 and R2 may form cycloalkyl in cooperation with the adjacent carbon atom; and R4 represents lower alkyl); (b) a compd. which generates an acid upon irradiation with visible light; and (c) a sensitizing dye. The compn. is useful as a material for forming electronic circuits, lithog. printing material, color filters, etc.

IT 487048-19-1P 666706-27-0P
(compn. sensitive to visible light)

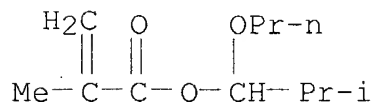
RN 487048-19-1 ZCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with
2-methyl-1-propoxypropyl 2-methyl-2-propenoate (9CI) (CA INDEX
NAME)

CM 1

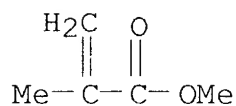
CRN 487048-11-3

CMF C11 H20 O3



CM 2

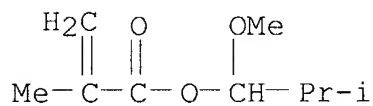
CRN 80-62-6
CMF C5 H8 O2



RN 666706-27-0 ZCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with
1-methoxy-2-methylpropyl 2-methyl-2-propenoate and methyl
2-methyl-2-propenoate (9CI) (CA INDEX NAME)

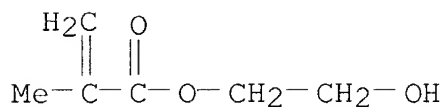
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CRN 487048-12-4
CMF C9 H16 O3



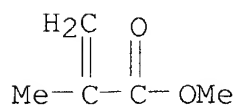
CM 2

CRN 868-77-9
CMF C6 H10 O3



CM 3

CRN 80-62-6
CMF C5 H8 O2



IT 487048-19-1P 666706-27-0P

(compn. sensitive to visible light)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN
THE RE FORMAT

L6 ANSWER 3 OF 4 ZCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2004:17489 ZCAPLUS

DOCUMENT NUMBER: 140:84633

TITLE: Positive-working photoresist composition and
patterning process using the same

INVENTOR(S): Takeda, Takanobu; Watanabe, Osamu

PATENT ASSIGNEE(S): Shin-Etsu Chemical Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 24 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

Priority

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1378795	A1	<u>20040107</u>	EP 2003-254243	20030703

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,
PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU,
SK

JP 2004045448	A2	20040212	JP 2002-195740	20020704
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US 2004023153	A1	20040205	US 2003-611881	20030703
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PRIORITY APPLN. INFO.:	JP 2002-195740	A	20020704
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AB The invention relates to resist compns. comprising as the base resin
a polymer using an alkoxyalkyl (meth)acrylate as a reactive group
which is decomposable under the action of an acid to increase soly.
in alkali have advantages including a practical level of shelf
stability, a significantly enhanced contrast of alkali dissoln. rate
before and after exposure, a high sensitivity, and a high resoln.
over a wide baking temp. range. The compns. are best suited as a
chem. amplified pos. resist material for micro-patterning in the
manuf. of VLSI.

IT 640291-47-0DP, hydrolyzed 640291-48-1DP,
hydrolyzed 640291-49-2DP, hydrolyzed 640291-50-5DP
, hydrolyzed 640291-51-6DP, hydrolyzed
640291-52-7DP, hydrolyzed

(alkoxyalkyl (meth)acrylate polymer in resist compn.)

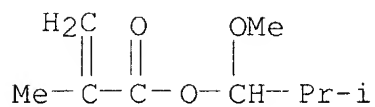
RN 640291-47-0 ZCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-methoxy-2-methylpropyl ester, polymer
with ethenylbenzene and 4-ethenylphenyl acetate (9CI) (CA INDEX
NAME)

CM 1

CRN 487048-12-4

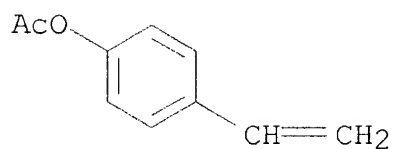
CMF C9 H16 O3



CM 2

CRN 2628-16-2

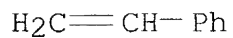
CMF C10 H10 O2



CM 3

CRN 100-42-5

CMF C8 H8



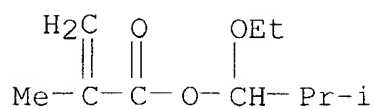
RN 640291-48-1 ZCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-ethoxy-2-methylpropyl ester, polymer
with ethenylbenzene and 4-ethenylphenyl acetate (9CI) (CA INDEX
NAME)

CM 1

CRN 487048-13-5

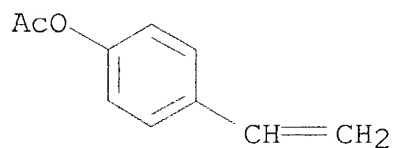
CMF C10 H18 O3



CM 2

CRN 2628-16-2

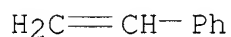
CMF C10 H10 O2



CM 3

CRN 100-42-5

CMF C8 H8



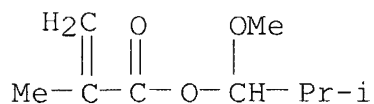
RN 640291-49-2 ZCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-methoxy-2-methylpropyl ester, polymer with 1-(1,1-dimethylethoxy)-4-ethenylbenzene and 4-ethenylphenyl acetate (9CI) (CA INDEX NAME)

CM 1

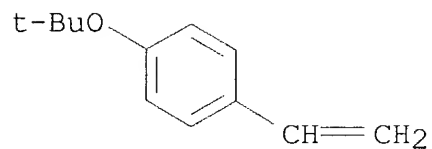
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CMF C9 H16 O3



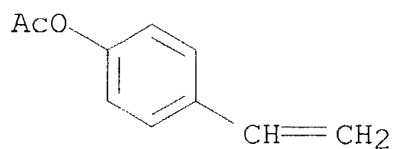
CM 2

CRN 95418-58-9
CMF C12 H16 O



CM 3

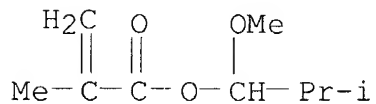
CRN 2628-16-2
CMF C10 H10 O2



RN 640291-50-5 ZCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1-methoxy-2-methylpropyl ester, polymer
with 1-(1,1-dimethylpropoxy)-4-ethenylbenzene and 4-ethenylphenyl
acetate (9CI) (CA INDEX NAME)

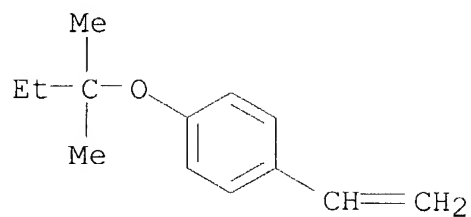
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CRN 487048-12-4
CMF C9 H16 O3



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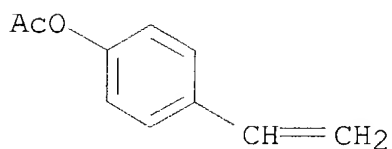
CRN 146716-59-8
CMF C13 H18 O



CM 3

CRN 2628-16-2

CMF C10 H10 O2



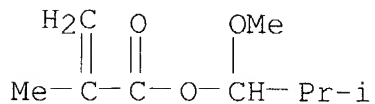
RN 640291-51-6 ZCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-ethyltricyclo[3.3.1.1^{3,7}]dec-2-yl ester, polymer with 4-ethenylphenyl acetate and 1-methoxy-2-methylpropyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 487048-12-4

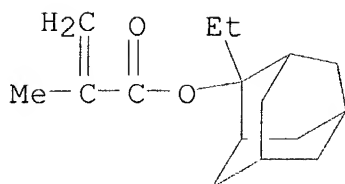
CMF C9 H16 O3



CM 2

CRN 209982-56-9

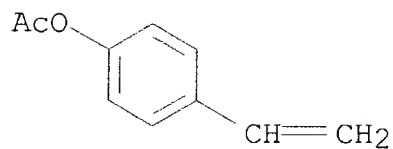
CMF C16 H24 O2



CM 3

CRN 2628-16-2

CMF C10 H10 O2



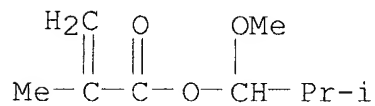
RN 640291-52-7 ZCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-methoxy-2-methylpropyl ester, polymer
with 4-ethenylphenyl acetate and 2-methyltricyclo[3.3.1.13,7]dec-2-yl
2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 487048-12-4

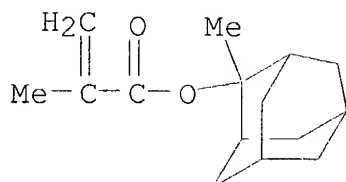
CMF C9 H16 O3



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CRN 177080-67-0

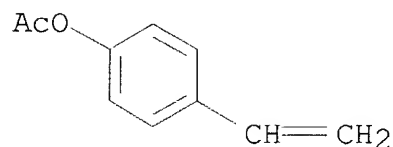
CMF C15 H22 O2



CM 3

CRN 2628-16-2

CMF C10 H10 O2



IT 640291-47-ODP, hydrolyzed 640291-48-1DP,
hydrolyzed 640291-49-2DP, hydrolyzed 640291-50-5DP
, hydrolyzed 640291-51-6DP, hydrolyzed
640291-52-7DP, hydrolyzed

(alkoxyalkyl (meth)acrylate polymer in resist compn.)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN
THE RE FORMAT

L6 ANSWER 4 OF 4 ZCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:58035 ZCAPLUS

DOCUMENT NUMBER: 138:108656

TITLE: Preparation of ethers by reacting hydroxy- or
carboxy-containing compounds with alkenyl ethers

INVENTOR(S): Shimizu, Ikuo; Ito, Katsuhiko; Osada, Kazuyasu;
Yamaoka, Tsuguo

PATENT ASSIGNEE(S): Kyowa Yuka Co., Ltd., Japan

SOURCE: PCT Int. Appl., 32 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.

KIND DATE

APPLICATION NO. DATE

WO 2003006407 A1 20030123 WO 2002-JP7117 20020712
 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

EP 1415968 A1 20040506 EP 2002-746017 20020712
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK

PRIORITY APPLN. INFO.:

JP 2001-213246 A 20010713
 WO 2002-JP7117 W 20020712

AB The ether compd. is prepd. by reacting an alkenyl ether R1(R2)C:CHOR3 with an hydroxy- or carboxy-contg. compd. -O(R3O)CHCH(R2)R1 (R1, R2, R3 = (un)substituted alkyl, aryl and aralkyl or R1 + R2 = cycloalkyl). The ether compds. are useful in resist compns. and coating compns. and as intermediates for medicines. Thus, 10.0 parts 1-propoxy-2-methylpropyl obtained from methacrylic acid and 1-propoxy-2-methylpropene was polymd. in the presence of AIBN at 70° for 5 h to give a 7.9 parts homopolymer with no. av. mol. wt. 9682 and mol. wt. distribution 2.2.

IT 487048-15-7P 487048-16-8P 487048-17-9P

487048-18-0P 487048-19-1P

(prepn. of ethers by reacting hydroxy- or carboxy-contg. compds. with alkenyl ethers)

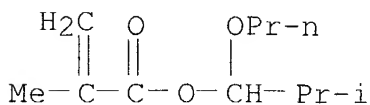
RN 487048-15-7 ZCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-methyl-1-propoxypropyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 487048-11-3

CMF C11 H20 O3



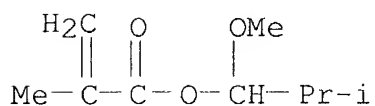
RN 487048-16-8 ZCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-methoxy-2-methylpropyl ester,
homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 487048-12-4

CMF C9 H16 O3



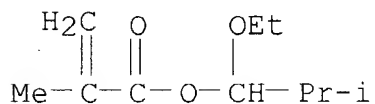
RN 487048-17-9 ZCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-ethoxy-2-methylpropyl ester,
homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 487048-13-5

CMF C10 H18 O3



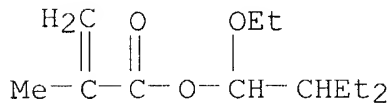
RN 487048-18-0 ZCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1-ethoxy-2-ethylbutyl ester,
homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 487048-14-6

CMF C12 H22 O3



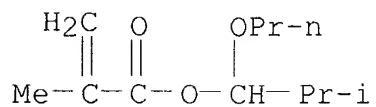
RN 487048-19-1 ZCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with
2-methyl-1-propoxypropyl 2-methyl-2-propenoate (9CI) (CA INDEX
NAME)

CM 1

CRN 487048-11-3

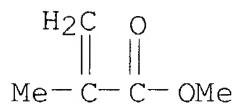
CMF C11 H20 O3



CM 2

CRN 80-62-6

CMF C5 H8 O2



IT 487048-15-7P 487048-16-8P 487048-17-9P

487048-18-0P 487048-19-1P

(prepn. of ethers by reacting hydroxy- or carboxy-contg. compds.
with alkenyl ethers)

REFERENCE COUNT:

1

THERE ARE 1 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN
THE RE FORMAT